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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,310	11/13/2001	Michael Windhager	P2159	8617
7055	7590	04/20/2004	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			MORILLO, JANEL COMBS	
			ART UNIT	PAPER NUMBER

1742

DATE MAILED: 04/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/869,310

Applicant(s)

WINDHAGER ET AL.

Examiner

Janelle Combs-Morillo

Art Unit

1742

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 02 April 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY [check either a) or b)]**

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.  
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.  
2. ☐ The proposed amendment(s) will not be entered because:  
(a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ they raise the issue of new matter (see Note below);  
(c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.  
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.  
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: 85-111Claim(s) objected to: 64, 65, 72, 78-80Claim(s) rejected: 56-63, 66-71, 73-77, 81-84

Claim(s) withdrawn from consideration: \_\_\_\_\_

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.  
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.  
10. ☐ Other: \_\_\_\_\_

Continuation of 5. does NOT place the application in condition for allowance because: Applicant's argument that the present invention is allowable over the prior art of record because Nawata does not teach either the number or the volume fraction of graphite particles are indicated to be result effective variables (arguments p 3-6) has not been found persuasive. The examiner agrees that Nawata teaches the average diameter of the graphite particles is particularly critical to wear resistance (at column 7 lines 24-44, arguments page 5), however, Nawata is still held to teach the amount (that is, number or quantity, as is understood in the art, and/or as defined by Merriam-Webster's Collegiate Dictionary 10 ed p 39) of graphite particles effects wear resistance (column 2 lines 3-16 of Nawata). The examiner disagrees that the entirety of Nawata teaches that only the average diameter effects the wear resistance (arguments page 5).

Applicant's argument that the present invention is allowable over the prior art of record because Nawata does not mention the vol% carbides has not been found persuasive (arguments page 6). The examiner submits that the though the vol% carbides of the alloy taught by Nawata may be dependent on rapid cooling action of the mold (Nawata at col. 2 lines 9-13), Nawata teaches a substantially similar process of making said alloy, including centrifugally casting at high rotation rates (for ex., 140 G), which is within the high centrifugal acceleration during solidification rate given in the instant specification of 80-180 g (page 4 lines 5-7). The examiner asserts that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655 1658 (Fed. Cir. 1990). Because the prior art teaches a substantially overlapping alloy composition processed in a substantially similar process (as is seen in the instant specification), then substantially the same microstructural characteristics, are expected to result.

Applicant's argument that the present invention is allowable over the prior art of record because EP'068 teaches maximum and minimum values of graphite particles that broadly overlap the instant range, or the argument that EP'068 does not teach the number or size of graphite particles is important, has not been found persuasive (arguments pages 7-9). As stated on page 8 line 19, if the preferred area ratio of EP'068 is used, then the graphite particles/mm<sup>2</sup> would range 10-2000/mm<sup>2</sup>. Concerning the motivation to select the instant range from the range taught by the prior art- it would have been obvious to one of ordinary skill in the art to select any portion of the range, including the claimed range, from the broader range disclosed in the prior art, because the prior art finds that said area ratio in the entire disclosed range has a suitable utility. Overlapping ranges have been held to be a prima facie case of obviousness, see MPEP § 2144.05. With respect to this overlap, applicant has not set forth unexpected results.

With respect to overcoming the prima facie case of obviousness that the examiner argues has been set forth, the examiner points out that applicant has not shown the criticality of the vol% graphite or distribution of graphite. Table 1 in the instant specification shows the criticality of the presence of V in the instant range, however the prior art clearly teaches the presence of V. Further, the instant specification teaches criticality in the alloy composition i.e. "The advantages achieved by the invention lie essentially in the fact that the solidification kinetics of the melt and the structural morphology of the material have been set so as to be advantageously changed. This change is achieved through the synergistic effect of the alloying elements in the specified concentrations, where a high number of small graphite particles is made possible by a slight increase, as compared to the prior art, in the silicon content and also aluminum in the presence of nickel in within tight limits" (spec. page 5 lines 29-31- page 6 lines 1-3). As stated above, because the prior art teaches a substantially overlapping alloy composition processed in a substantially similar process (see above discussion), then substantially the same microstructural characteristics, are expected to result. Applicant has not set forth specific unexpected results with respect to the particular ranges of elements claimed. With respect to the overlap in alloying ranges, it would have been obvious to one of ordinary skill in the art to select any portion of the range, including the claimed range, from the broader range disclosed in the prior art, because the prior art finds that said composition in the entire disclosed range has a suitable utility. Overlapping ranges have been held to be a prima facie case of obviousness, see MPEP § 2144.05.

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